

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

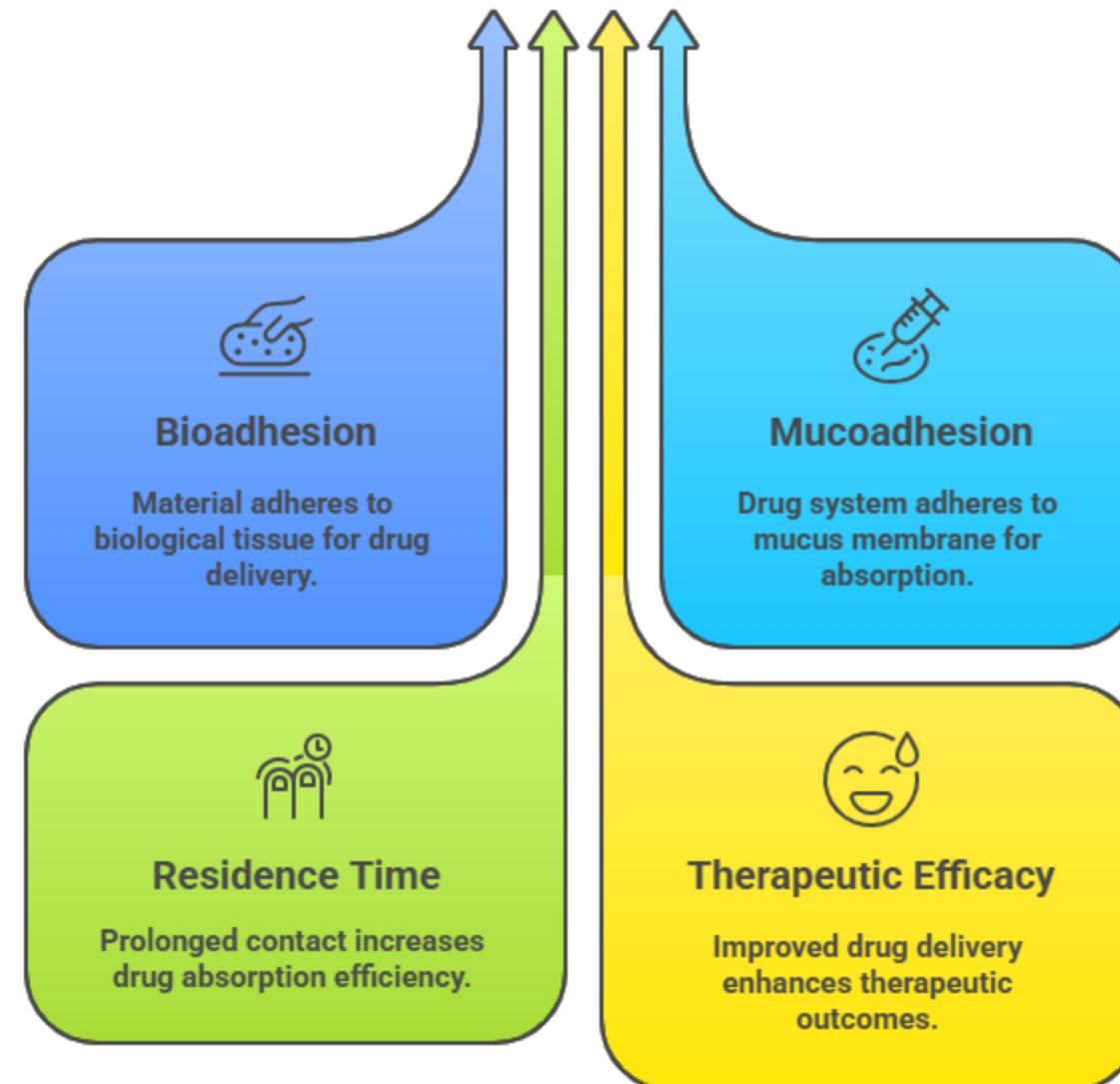
COURSE NAME : NOVEL DRUG DELIVERY SYSTEM (BP 706 T)

VII SEM / IV YEAR

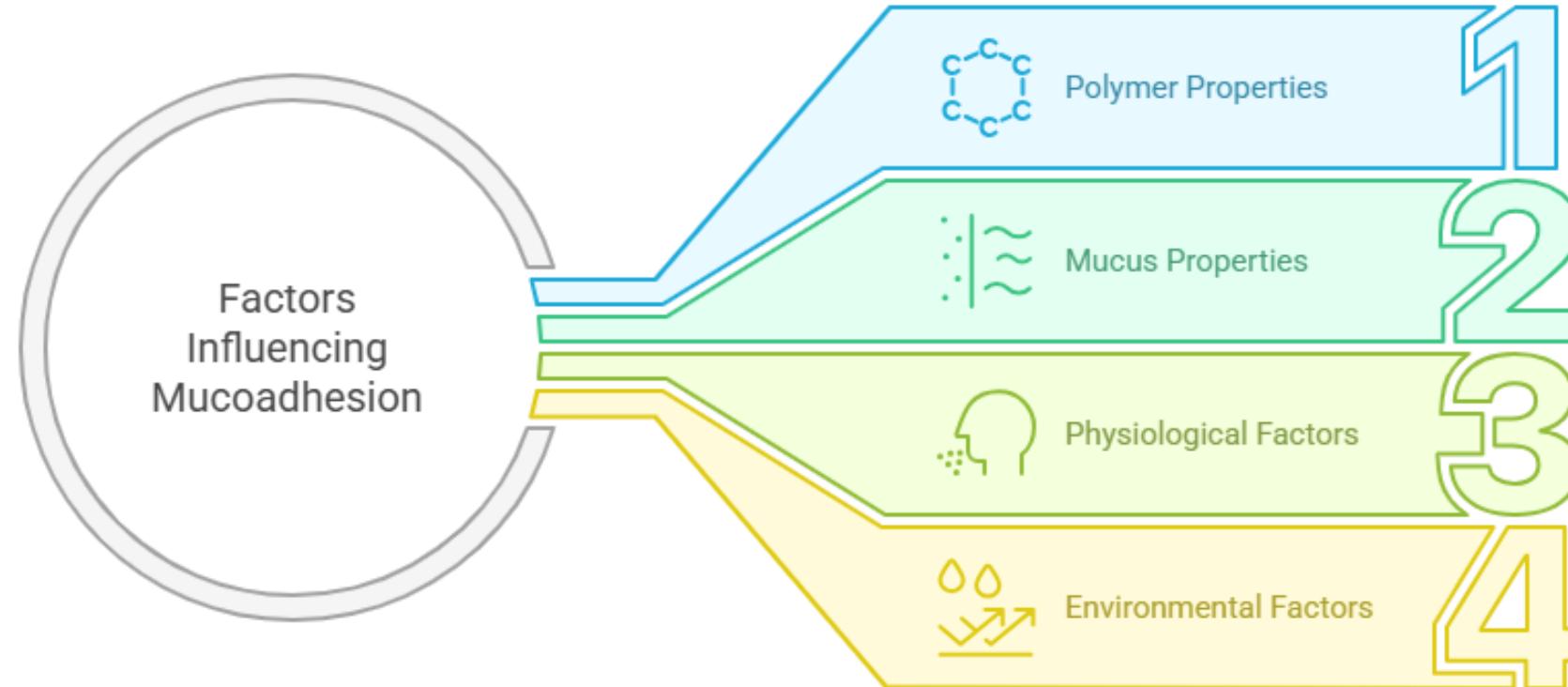
UNIT -2

TOPIC 2 :MUCOADHESIVE DRUG DELIVERY SYSTEM

Mucoadhesion in Drug Delivery

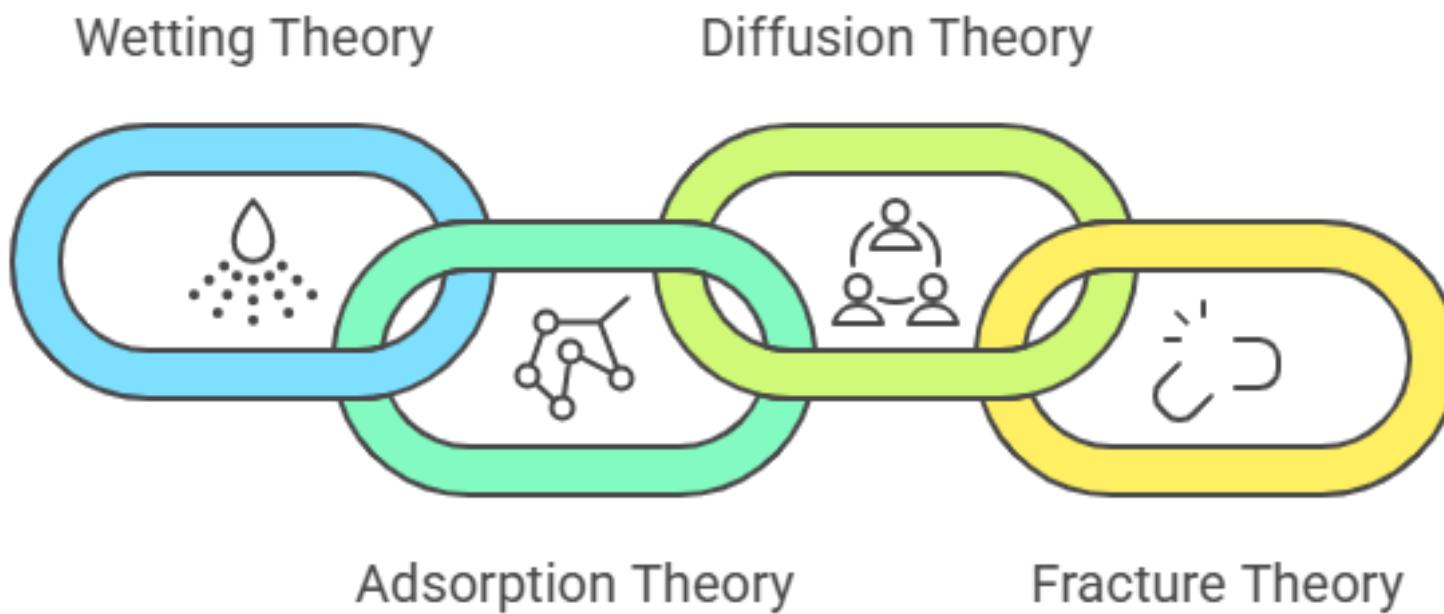


Factors Influencing on Mucoadhesion



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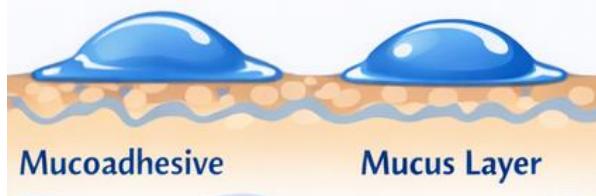
Theories of Mucoadhesion



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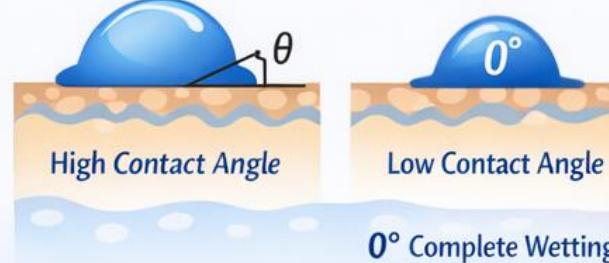
Surface Tension

Lower surface tension mucoadhesives spread more easily on the mucus layer, which has high surface tension.



Contact Angle

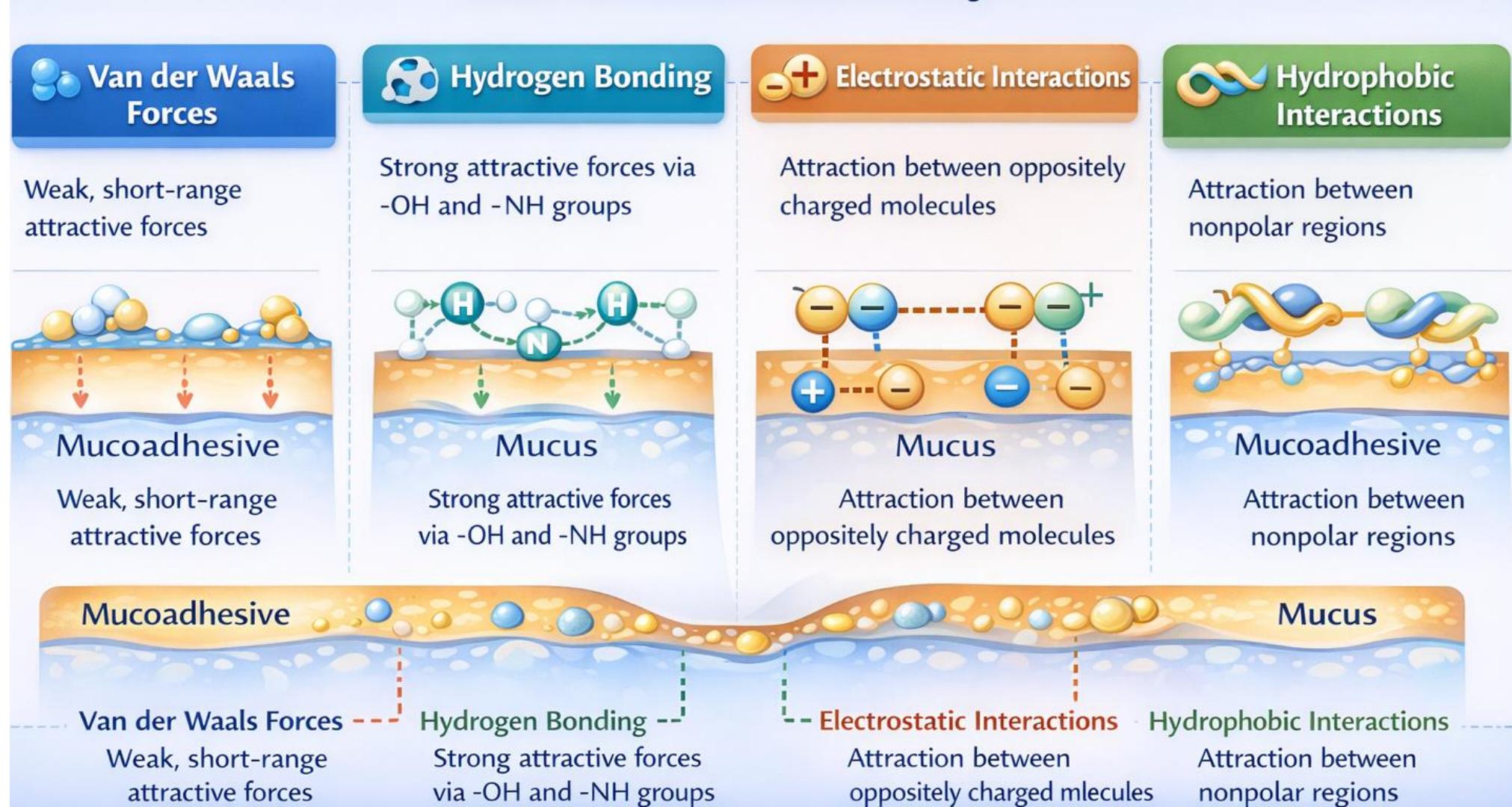
Smaller contact angle indicates better wetting.



Surface Free Energy

Matching surface free energy of the material and mucus layer improves wetting.

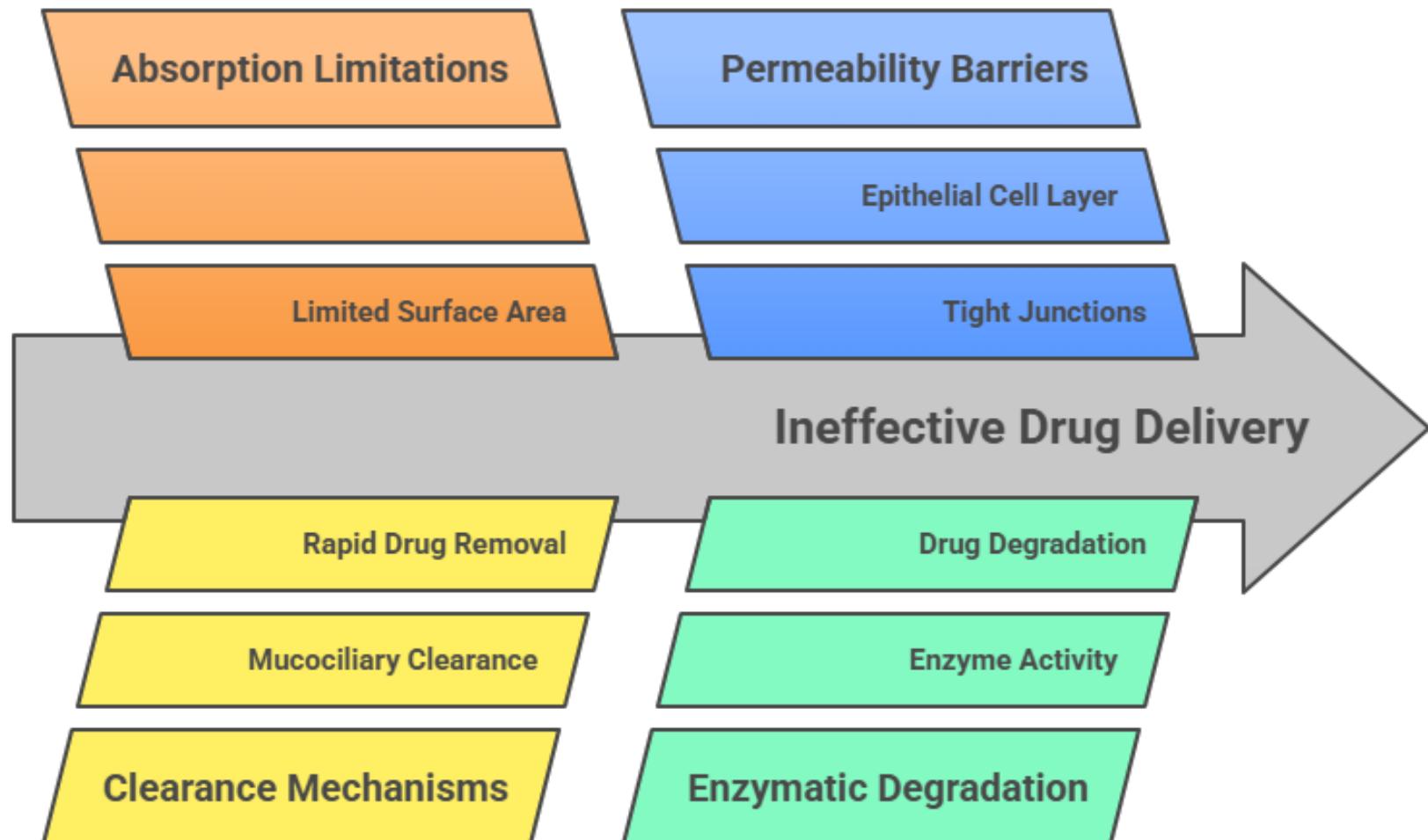




Benefits of Mucosal Drug Delivery

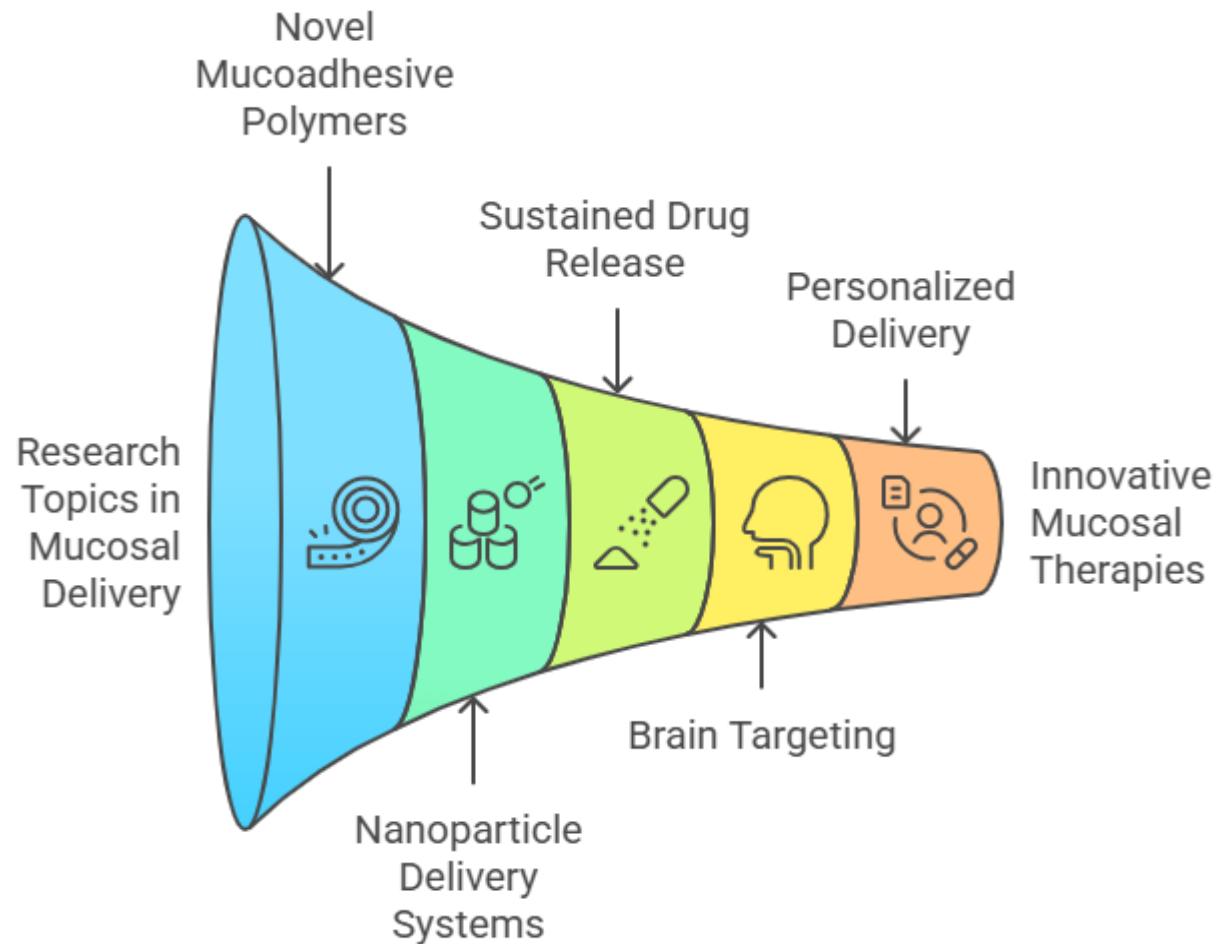


Challenges in Mucosal Drug Delivery

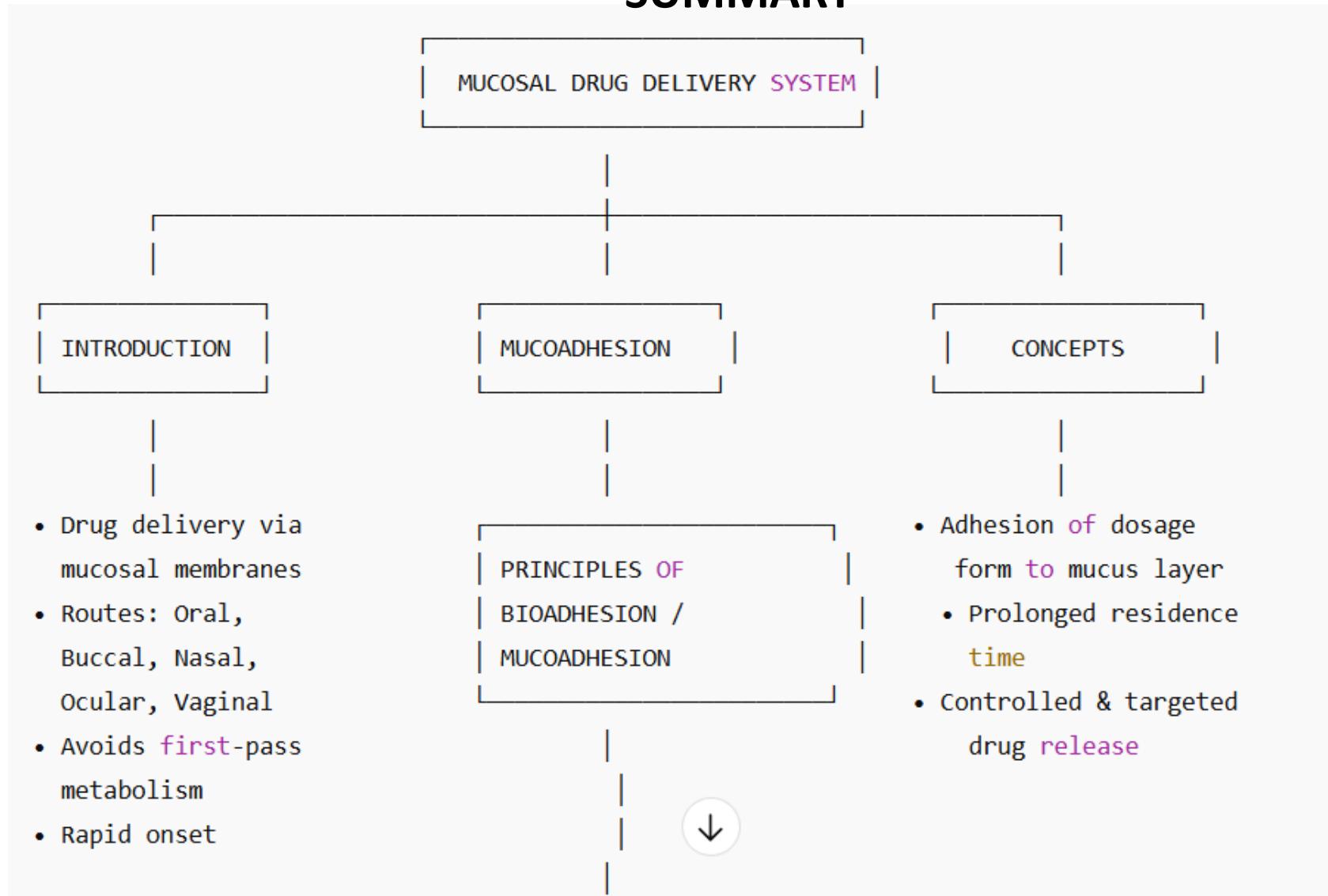


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Application Mucosal Drug Delivery Systems

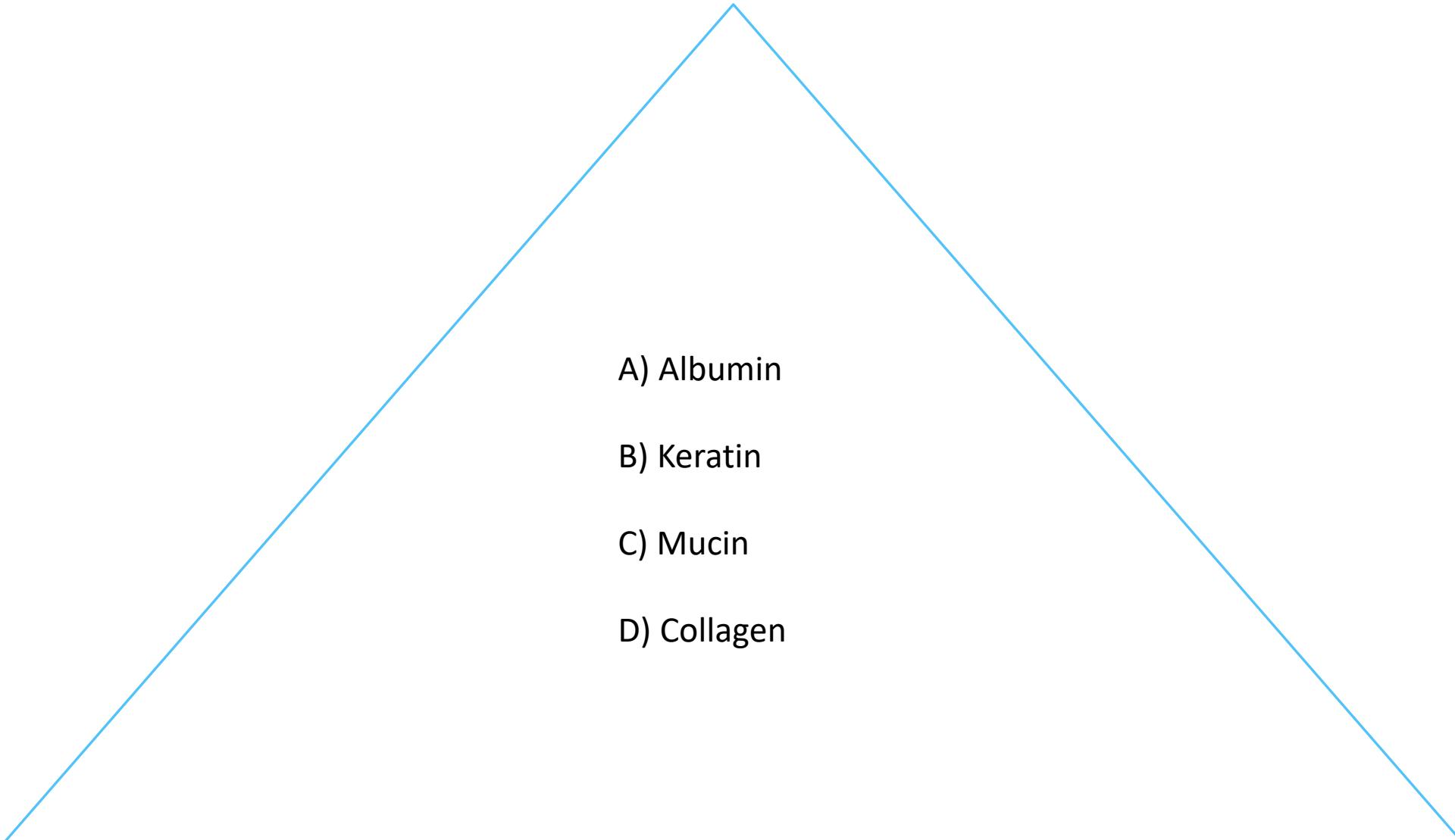


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1.The main component of mucus responsible for mucoadhesion is:





A) Albumin

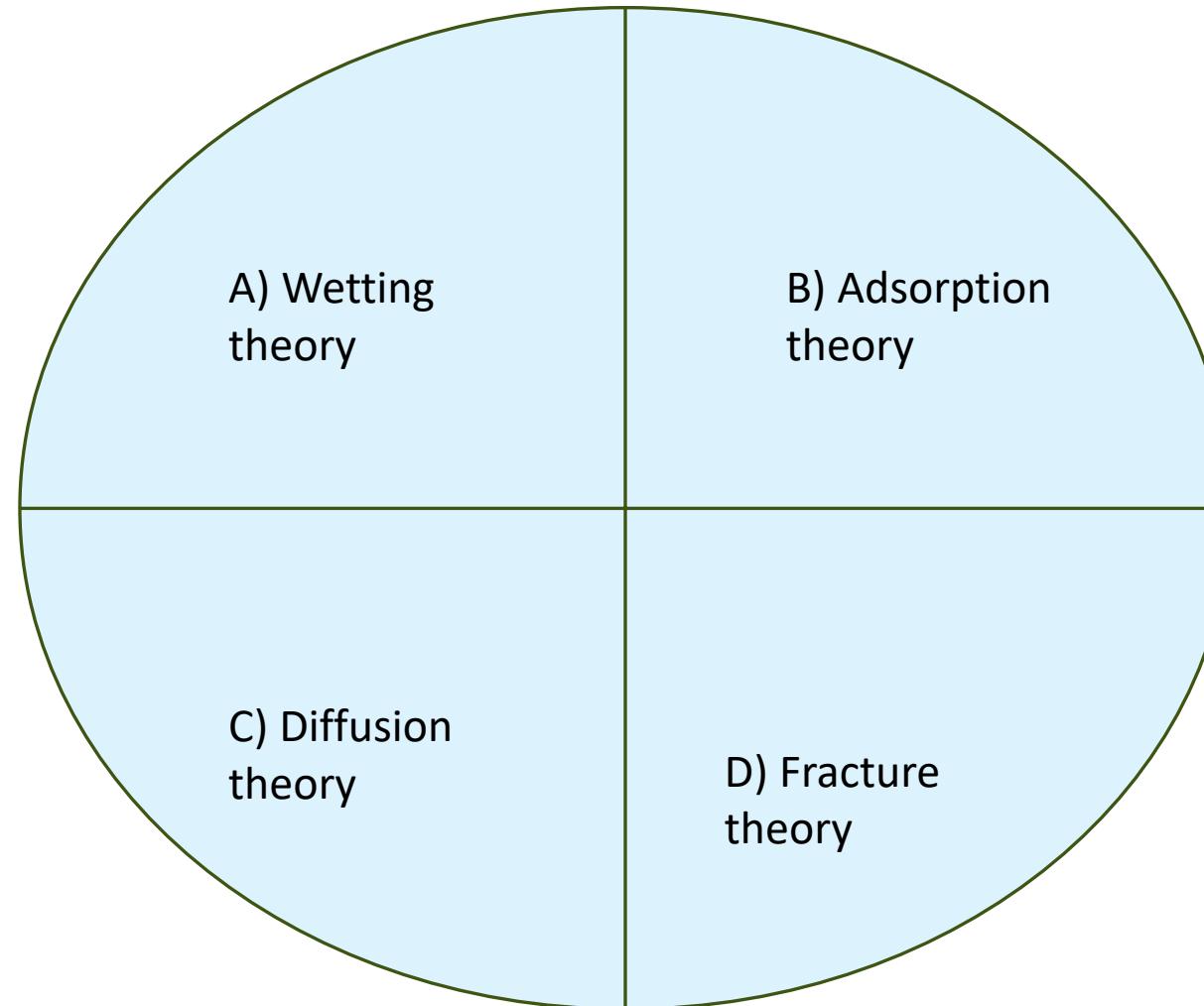
B) Keratin

C) Mucin

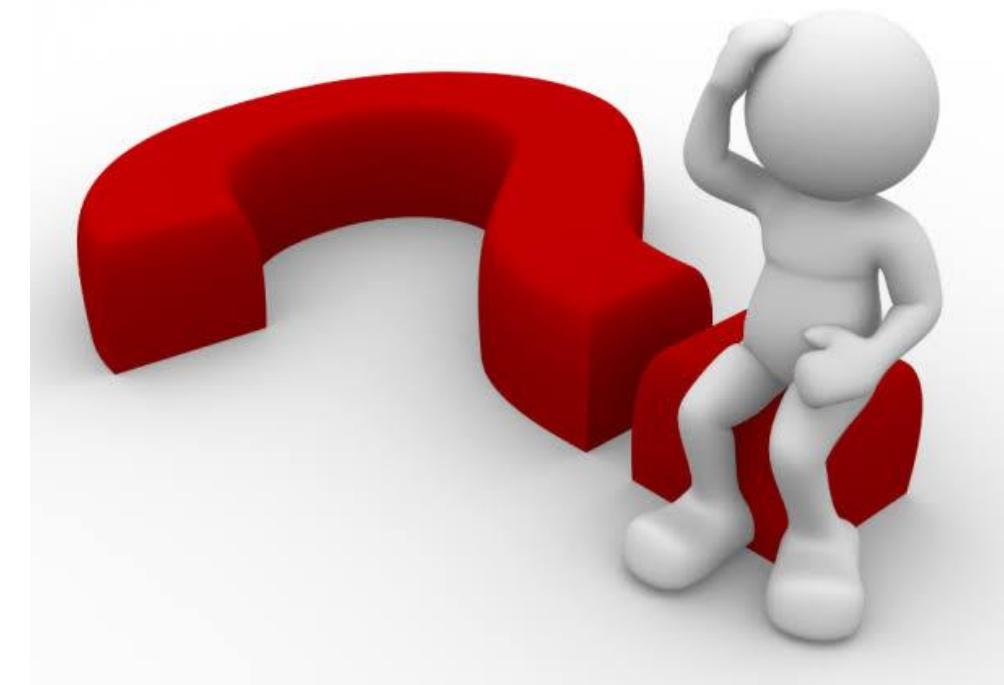
D) Collagen

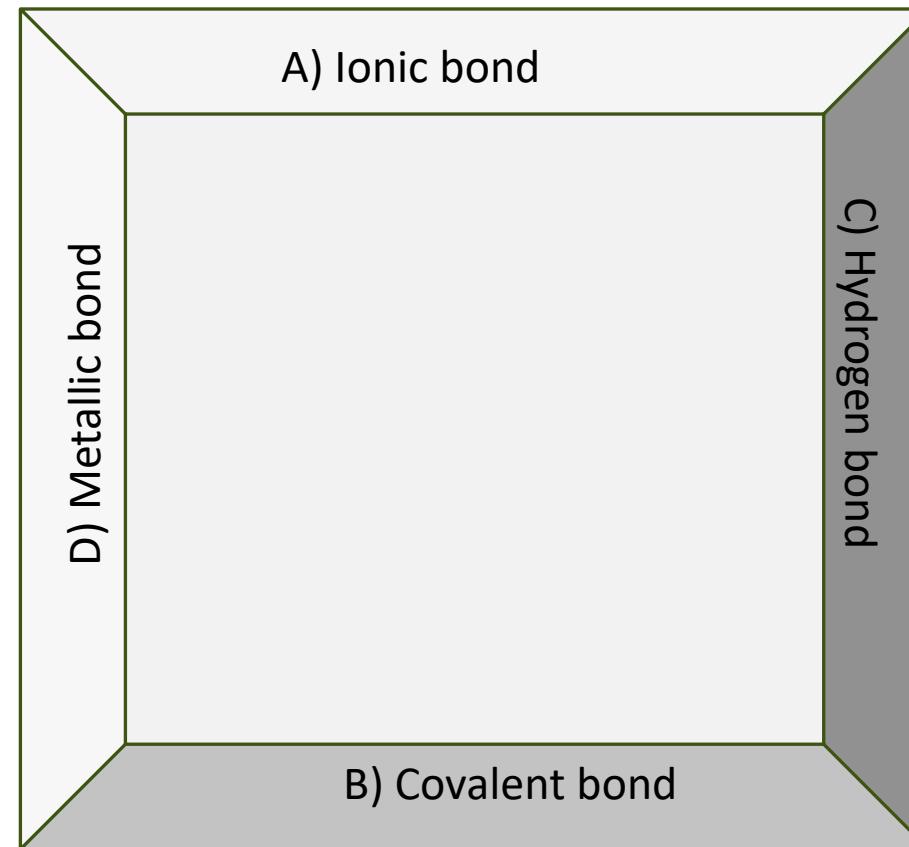
Which theory explains interpenetration of polymer chains with mucus?





Which bond mainly contributes to mucoadhesion?





REFERENCES

1. Yie W. Chien: Novel Drug Delivery Systems, Second Edition, Marcel Dekker, Inc, 1992 Pg no.816.
2. Joseph R. Robinson: Sustained and Controlled Release Drug Delivery Systems, First edition, Volume 6, Marcel Dekker, Inc, 1986, pg.618.
3. <https://www.sciencedirect.com/journal/journal-of-controlled-release>
4. <https://www.tandfonline.com/doi/full/10.1080/10837450.2018.1534376>
5. <https://www.scribd.com/document/668313752/Controlled-and-Novel-Drug-Delivery-by-N-K-Jain-1st-Editn-Reprint>

THANK YOU