

Immunogenicity → Trigger the immune response!

Adaptive → Efficiat the T-cells T_c
 " " Production of T_H Ab
 by B-cells.
 Innate!!! → memory cells $\begin{cases} B\text{-cell} \\ T\text{-cell} \end{cases}$

T-Cells + Antigen $\rightarrow$ Effector T-Cells + Memory T-Cells

"All molecules which have an Immunogenic property are also antigenic but all antigens are not immunogens!"

Immunogenicity

① Chemical nature | Composition of a molecule

Proteins > Polysaccharides > Lipid & Nucleic acid

most potent Immunogens (Hetero > Homopolymer)

Glycoproteins / Peptidoglycans

Protein > Glycoproteins > Peptidoglycans

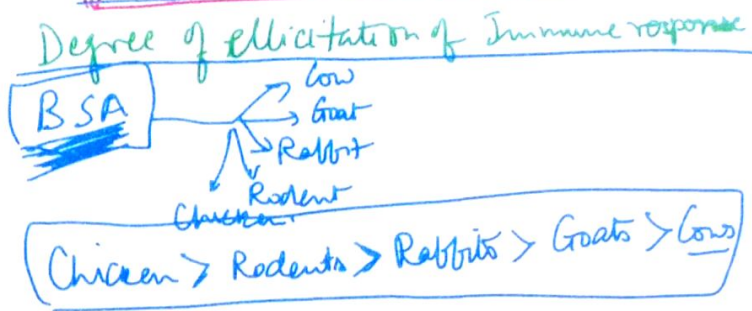
Lipoproteins → Quasi Immunogenic

Glycolipids → Also Immunogenic

Proteins > Polysaccharides
most potent Immunogens
→ Glycoproteins / Peptidoglycans

Protein $\rightarrow$ Glycoproteins $\rightarrow$ Peptidoglycan.
Lipoproteins $\rightarrow$ Outer Immunogenic
Glycolipids $\rightarrow$ Also Immunogenic.

* Foreignness - Degree of foreignness.
Self and Non-Self molecule -
 Distinguished
Phylogenetically → BSA - Reactive serum albumin
Plant, Protozoa, Lower, Fish, Reptile, Mammals
 Inject it into a Human being (Mammals)
 Amount of Ab. raised against all (nmL)



Molecular Size -

Correlation b/w the size of macromolecule and its immunogenicity!

Best-Immunogens Molec. Wt. 100,000 Da.
100 kDa

5000 - 10000 Da (5 kDa - 10 kDa) → Poor Immunogens

Molecular Wt. less than 1000 Da (1 kDa)

Proved to be as good a good Immunogen.

Molecular Structure → Potent Immunogen

→ Complex - Aromatic - Amino acids:
Tryptophan, Tyrosine, Phenylalanine

→ Simple → Glycine, Alanine

Susceptibility to Antigen processing and Presentation

T_H, T_C → Activation - Require the Antigen Presenting