



Role of HLA variation in inflammatory process

1. HLA variants may promote specific (commensal) bacterial and viral epitope binding leading to immune activation
2. Molecular mimicry- specific HLA genotypes may recognise host peptides that are similar to bacterial/viral epitopes and trigger host immune response against self

Underlying Processes leading to Inflammatory Bowel Disease

1. Hyper-immune reaction to normal gut commensals
2. Hypo-immune reaction resulting in insufficient clearance of bacteria and chronic low-grade inflammation
3. Loss of epithelial barrier function (primary genetic or secondary to inflammation) resulting in bacteria invasion
4. Abnormal and sustained auto-inflammatory process directed against host cells