**Course: Advance Bio Informatics**

**Module Title: Familial aggregation**

**Module No: 160**

**Familial aggregation**

It is a genetic factors & disorders Relative Risk ratio. Families affected persons / Families of controls. It uses the Mendelian laws inheritance.

**Degree of genetic Relatedness**

Proportion of genes b/w relative and index family member or probed. First/2nd / 3rd degree relatives. It is measured by relative recurrence risk or familial risk ratios. Spouses living in same household to distinguish b\w genetic and non genetic Familial recurrence risk. Familial resemblance & genes, 50% decrease in disease risk with degree of relatedness.

**Familial Recurrence Risk**

Familial resemblance & genes, 50% decrease in disease risk with degree of relatedness.

**Population Prevalence:**  Proportion of a population found to have a condition Point/period/lifetime prevalence

**Prevalence**

λ : 20, 2-5

50% decrease: diseases with strong genetic contributions .Interaction b/w loci

Risk in 2nd/3rd degree decreases by 50% more than one locus.

**Incidence**

Incidence is to measure of new cases arising in a population over a given period (month, year, etc.)

**Prevalence:** How many people have this disease right now?

**Incidence:** How many people per year newly acquire this disease?”

**Advantages**

It is a disease manifestation within families. It is Validity of diagnostic categories. It access specificity of transmission of symptom patterns & disorders. It has Etiological or phenotypic heterogeneity.