

# Introduction to Pedigree Analysis



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Biostatistics 666



# Questions in Pedigree Analysis

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- Could a single gene be responsible for condition?
  - If so, what kind of gene?
- Is this gene near a marker of known location?
  - If so, where?
  - Is a particular locus involved in some disease?
- Is the reported family information accurate?
  - If not why not?



# Elements of Pedigree Likelihoods

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- **Prior Probabilities**
  - For founder genotypes
- **Segregation probabilities**
  - For offspring genotypes
- **Penetrances**
  - For individual phenotypes