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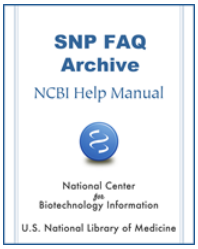

General information about Single Nucleotide Polymorphisms

What is a SNP, and how are they used in research?

SNP stands for "**S**ingle **N**ucleotide **P**olymorphism". A SNP is the most common type of genetic variation, and may occur every 100 to 300 bases. A key aspect of research in genetics is the association of sequence variation with heritable phenotypes. It is expected that SNPs will accelerate the identification of disease genes by allowing researchers to look for associations between a disease and specific sequence differences (SNPs) in a population of individuals. These association studies differ from the more typical approach, that of pedigree analysis, which tracks transmission of a disease through a family. Because it is much easier to obtain DNA samples from a random set of individuals in a population than it is to obtain them from every member of a family over several generations, association studies should speed the discovery of disease genes. For a current summary of information contained in the database, see the dbSNP Summary page. (**04/05/06**)