**Question and Answer Q&A**

**What is a GWAS?**

Since around the 1970s geneticists realized that the majority of genetic variance (difference) between individuals comes from differences in the DNA sequence of individuals. This is measured by genetic variants known as single-nucleotide polymorphisms (often referred to as SNPs, pronounced ‘Snips’).

Of these millions of small genetic sequence differences in our DNA, the majority of GWAS to date have examined what is called common variants. They are called ‘common’ because they are found in more than 5% of the population and occur widely regardless of geographic or ancestral origins.

Add definition GWAS

GWAS identify genetic markers that are correlated or associated with a particular trait and not the mutation that causes the disease or trait.

Until recently GWAS did not look at what is called rare variants, which are those that occur in less than 5% of the population.

What is an allele and why do some ancestry groups have a higher frequency than others?

XXX

**Is race and ancestry the same thing?**

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**Why is it important to include people with more ancestral diversity in genetic discoveries?**

Xxxxx

Do GWAS only study diseases?

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