

Help

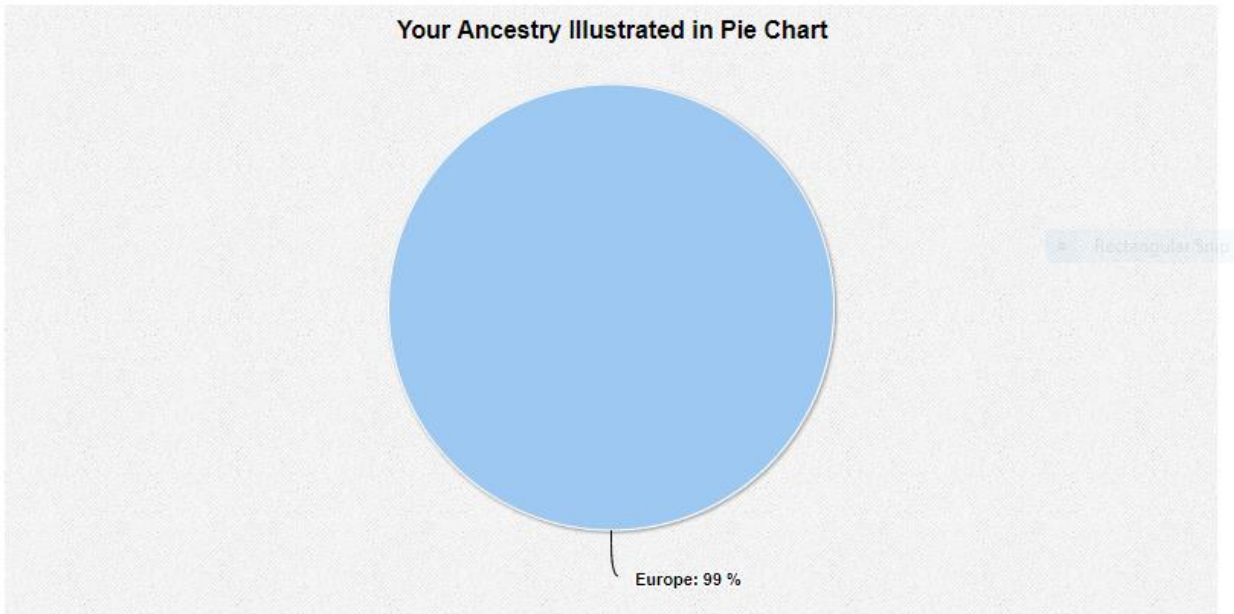
Pie Chart

PCA Plot

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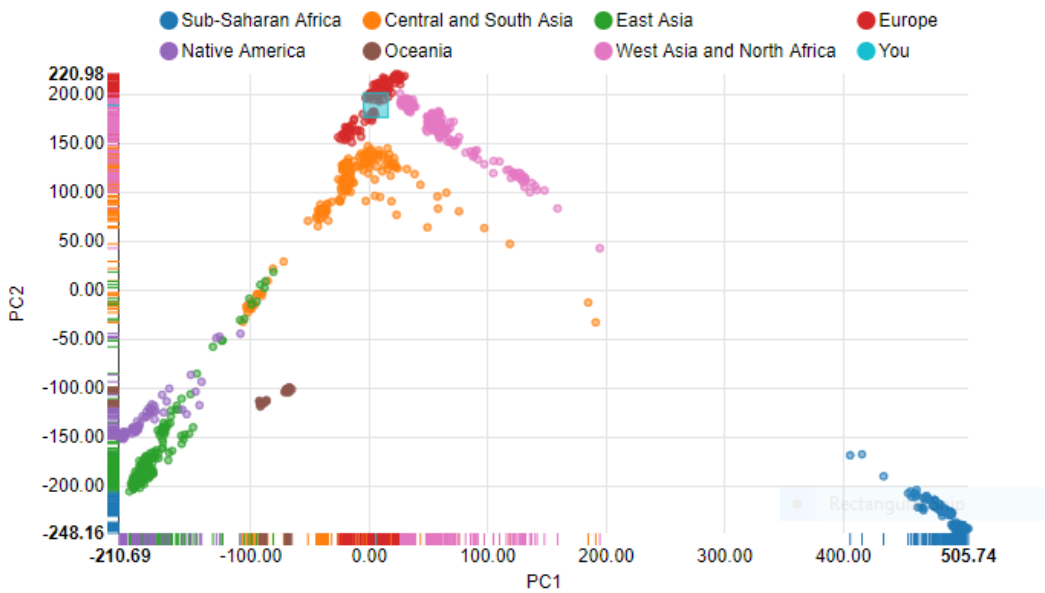
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## Ancestry Pie Chart



This pie chart shows an estimate of your ancestral genetic composition. Please note that the estimates provided here may look slightly different than those presented in the PCA or Chromosome plot, each of which used a different kind of analytical approach.

## Ancestry Principal Component Analysis (PCA) Plot



This is a so-called Principal Components Analysis, or PCA plot. It groups genetically similar individuals close together on the graph.

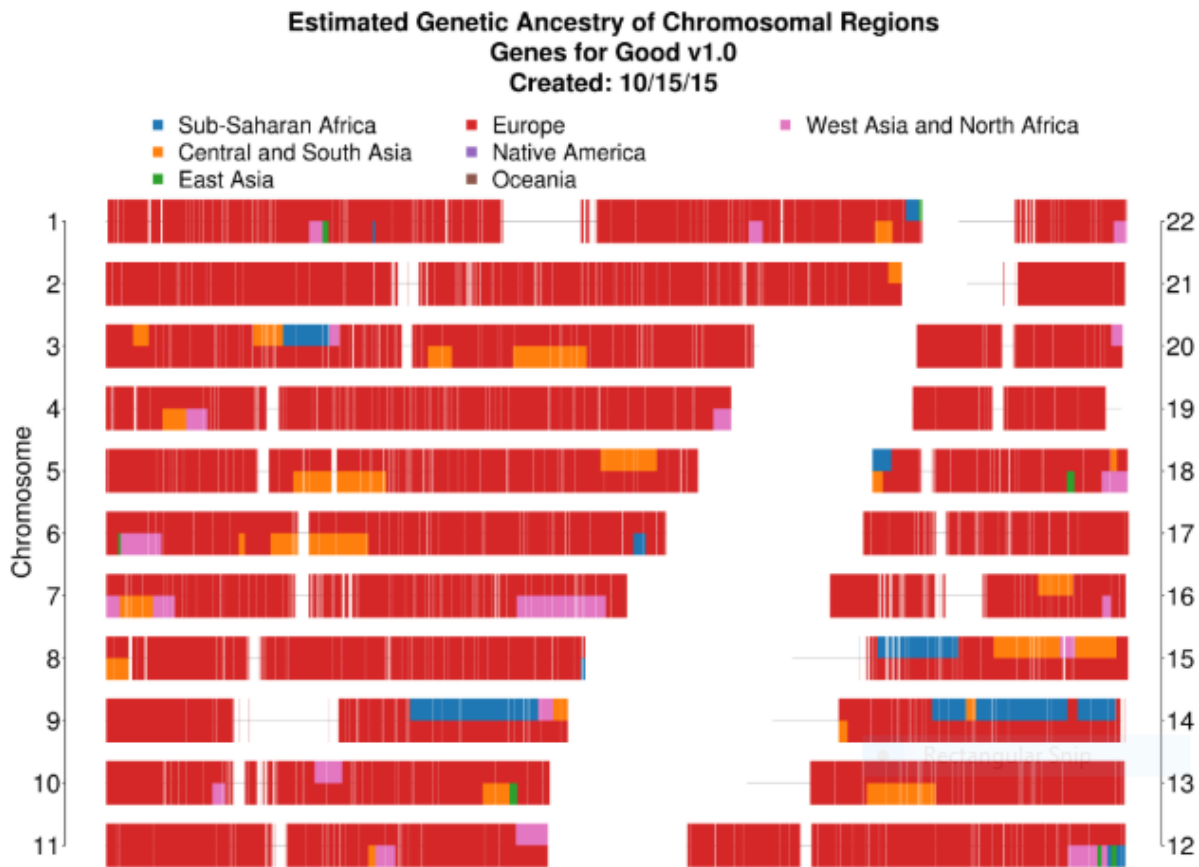
You are the blue square. Each of the other colored dots represents one individual from a separate genetic study of people from around the globe (the reference individuals) with known ancestry.

The plot allows you to see how genetically similar you are to these reference individuals. Individuals with multiple ancestral roots will appear between the clusters of individuals with a single ancestry, and may even fall close to an ancestry that they are not necessarily descended from. For example, a participant with one parent of East Asian ancestry and one parent of European ancestry, would likely fall somewhere between the East Asian cluster and the European cluster.

This particular plot tends to best separate Europeans, Africans, and East Asians from one another. There's no need to pay any attention to the actual numbers on the horizontal or vertical axes of the graph. The actual values here are not important, only the relative distances between the points and the clusters of points that matter.

**Click on the colors in the legend to remove a population (or yourself) from the plot and zoom in on the remaining individuals.**

## Chromosome Plot



For this plot, we attempted to determine the most likely ancestral population for each segment of your 22 pairs of chromosomes (we excluded the sex chromosomes). You may notice that within some chromosomes there are white spaces where no ancestry has been inferred. These are positions that our genotyping technology did not measure.

The plot should approximately reflect both sides of your family. For example, in a very simple case where a participant has one African parent and one European parent their plot will show one African chromosome in each pair and one European chromosome in each pair. However, because of the technology we use, it is not possible to determine with absolute certainty which segments are on the same chromosome, so this may not be apparent in the plot.

Please note: it is not possible to assign correct ancestry to all locations in the genome. Thus, some short regions may have been assigned to populations that you are not descended from. Potential reasons include errors in the DNA measurements, flaws in the statistical model that assigns ancestry, or a segment of your DNA just happens to be more similar to a sequence that is more common in another population. Attempting to correct for these errors could introduce biases, so we chose to pass on the results unfiltered and encourage you to critically consider this information when attempting to understand your genetic origins.

In particular, the Genes for Good team noticed that

- Central and South Asian ancestry, and Native American ancestry, was often assigned to chromosomal segments of individuals who appear to actually have East Asian or European Ancestry, and vice-versa.
- West Asian and North African Ancestry was often assigned to some portions of individuals who appear to actually have European ancestry and vice-versa.