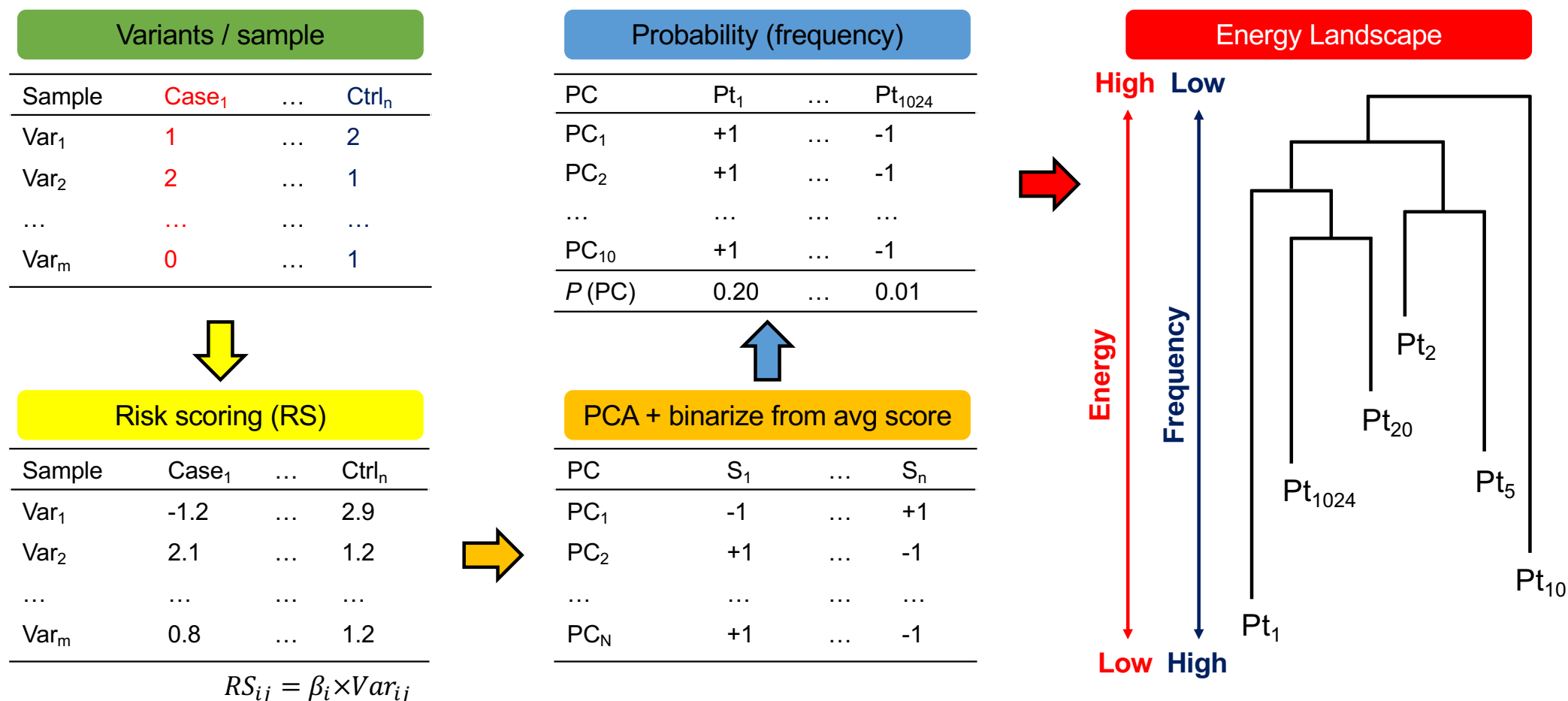




Supplementary Figure 1. Outline of energy landscape

The autosomal variants that passed QC criteria were assessed with a logistic regression model, adjusting for sex and age. Using the variants with $p < 0.01$ weighted by their coefficients, a PCA analysis was performed. The principal component (PC) scores were binarized (i.e., -1 or +1) by the mean of the eigenvector values. Each subject was represented by a binary vector of 2^N . Energy values of 2^N binary vectors were compared to identify local energy minimums. By using a disconnectivity graph labeling the energy local minimum states, energy landscapes can be visualized using the R packages.