

Figure 1 Pseudo-code of the simulation program

Initialize parent population

loop for each generation from 0 to 20

if (prevent marriage of gene carriers)

Shuffle parent population so that carriers only occupy even positions of the array; place normal individuals elsewhere

else

Shuffle parent population array

endif

After random mating of parents (Mendelian inheritance), generate the offspring population

Calculate the gene frequency and the percentage of heterozygotes or homozygous individuals in offspring's population (to be the next parent population)

Reinitialize the new parent population

Record the calculated frequencies

endloop
