

GRAPHICAL USER INTERFACE IN HUMAN IDENTIFICATION UNDER HARDY-WEINBERG ASSUMPTION

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Graphical user interface in human identification by matching STRs from multiple loci is presented in this paper. We applied this research to 515 Japanese data, which was strictly managed by a rule of the Ministry of Health, Labour and Welfare in Japan. The data was statistically confirmed by an analysis of the likelihood test and the G-T's exact test.

We can easily recognize the relation of two human beings on the screen, categorized into paternity, maternity and no relation, with some probability.

These probabilities were calculated by the algorithm based on Bayes' theorem from above data and published data of Japanese by Internet. Our algorithm allows for the possibility of mutation within an assumed probability of 0.2 % for each locus after Calafell[1].

We can also simulate the possible loci of paternity of person considered.

[1] Francesc Calafell, Int J Lega Med(2000) 114:61-65