EVALUATION OF SIMPLE AND COMPLEX CASES OF PATERNITY TESTING AGREEMENT WITHIN THE AGENCY, THE INSTITUTO COLOMBIANO DE BIENESTAR FAMILIAR (ICBF) AND INSTITUTO NACIONAL DE MEDICINA LEGAL Y CIENCIAS FORENSES (INMLYCF) FOR YEAR 2011

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In cases of paternity testing analysis of the laboratory of genetics Area-Convenio ICBF, we reported 8,843 cases in 2011, showing 2.53% mutational events, 1.47% involves both parental grandparents, 0.96% reconstruction of the alleged father or any paternal grandparents, and 3.65% bone paternity; we also report null alleles or preferential amplification cases, and cases where we increase the value of probability of paternity required by Colombian law 721-2001.

These events make a single paternity testing a real challenge, which must rely on genetics and statistics knowledge. In this study, we analyzed thirteen (13) CODIS genetic markers, where we showed the different events obtained with the initial amplification of single kit, subsequently we increased the number genetic markers of different marketing (Promega Corporation), which allowed null alleles amplification, mutational events confirmation, to increase the percentage of probability of paternity and reproducibility of genetics profiles other samples. **#**