

FAMILIES REUNIFICATION THROUGH DNA ANALYSIS IN SURVIVALS OF THE GREATEST NATURAL DISASTER IN COLOMBIA. THE TRAGEDY OF ARMERO-TOLIMA

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On November 13, 1985 at 9:20 pm the Snow covered -Volcano "Nevadodel Ruiz" erupted. The ice thawed generated a mudslide that devastated in a matter of minutes the town of Armero Tolima located 45 kilometers away. More than 25,000 people died or are missing. This tragedy is the biggest natural disaster to date in Colombia.

It is unknown how many people survived the disaster. Many children were given in adoption by the Instituto Colombiano de Bienestar Familiar (ICBF) and were transferred to other countries without the consent of their parents or relatives (since many were struggling between life and death in clinics of the region, or they were not in this population).

Today, more than thirty years later, these children, mothers, fathers, uncles, aunts, grandparents, grandmothers, brothers and sisters, are trying to meet again. Given that the justice exonerated the Colombian government to compensate the relatives of the victims for the moral and material damages caused by this tragedy, these families are requesting information of the whereabouts of their children and relatives, as well as for free DNA testing and the creation of a database that allows them to compare genetic profiles, but no state organization has given them help over these thirty years.

The Armando Armero Foundation, a NGO that gathers survivors of the Armero tragedy, makes efforts to reunify families. In association with our Institution, where free DNA testing for autosomal STR, Y Chromosome Y and mitochondrial DNA studies are carried out, in order to compare samples to identify family relationships to reunify families.

As of today, our database has 266 genetic profiles of individuals, of which 41 were given up for adoption, and the rest are family members who seek their children, brothers or nephews.

Thus far, 30 years after this tragedy, we have been able to reunify three family groups. One of them are two sisters reunited based on STR analysis and mtDNA, and two pairs of father-son, by STR analysis and Y Chromosome analysis. One of the individuals was given in adoption to a couple in the Netherland's and another in the USA. These results show the power of DNA technology to corroborate family relationships for reunification purposes.