

Unraveling the True Identity of "Paul Fronczak" through Genetic Genealogy

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The biological parents of tens of thousands of adoptees have been identified through genetic genealogy methodologies created for this purpose. This very same methodology is applicable to resolving all types of human unknown identity cases: foundlings, victims of kidnapping, amnesiacs, false identities, etc. These techniques were successfully applied to the widely publicized case of the man raised as Paul Fronczak, fifty years after the FBI erroneously identified him as the kidnapped Fronczak newborn. Through the use of commercial direct-to-consumer DNA testing combined with extensive genealogical research, "Paul Fronczak" was conclusively identified as Jack Rosenthal from Atlantic City, New Jersey. This identification was made through comparing the family trees of the individuals in the commercial DNA databases who shared significant amounts of autosomal DNA with the subject, identifying multiple sets of common ancestors from among those trees and then triangulating the descendants of those common ancestor couples to find the intersection of those family trees. Identifications of descendants from these intersections were made through traditional genealogical documentary and forensic genealogy descendancy research.

Biogeographical ancestry analysis, Y-chromosome STR testing, mitochondrial DNA testing and X-chromosome DNA analysis were also essential components of this research, revealing to which specific population groups his ancestral lines belonged and providing guidance in the identification of candidate biological parents. The Y-DNA testing revealed the direct male ancestral line was of Ashkenazi Jewish ancestry, while comprehensive mtDNA testing revealed a Scandinavian or Finnish origin for the direct maternal line (with possible gene flow into/from Eastern Europe). Biogeographical ancestry analysis from high-density SNP genotyping, revealed a highly admixed, complex overall ancestral background of Ashkenazi Jewish, Southern European, Eastern European and Northern European origins, with analysis of the X-chromosome uncovering the existence of an additional, more distant, Ashkenazi Jewish ancestral line on the maternal side. This focused the search to a paternal side consisting of largely Ashkenazi Jewish and Southern European ancestry and a maternal side of predominantly Northern European ancestry with a probable single Ashkenazi Jewish great great grandparent and a probable single Eastern European great great grandparent.

Comprehensive family trees were built for the descendants of the sets of common ancestors identified from the autosomal DNA matching databases. Interviewing and targeted DNA testing of individuals in these candidate family trees enhanced and confirmed the research. Combining information gained from these interviews with the knowledge of the ancestral makeup of the families in question resulted in a positive identification of "Paul Fronczak" as Jack Rosenthal, a twin from New Jersey.