

A routine DNA identification case with a one-in-ten-million twist

Krebs O.^{1*}, Papist N.², Ondruschka B.¹

*lead presenter

¹ oliver.krebs@uke.de, University Medical Center Hamburg-Eppendorf, Institute of Legal Medicine, Hamburg, Germany

² Federal Police Hamburg (LKA), Death investigations, Hamburg, Germany

What began as a simple, routine case of identifying an unknown dead person became a good example of why identifications should not be based solely on DNA analysis.

In 2023, the partially skeletonized body of an unknown man was found in the basement of an abandoned building in Hamburg. Since there were no clues to the identity of the dead man and fingerprints were no longer preserved, a DNA analysis (16 ESS markers) was commissioned to match the profile with missing people. There was a hit in the database with a father looking for his son. The paternity analysis gave a 99.99999% probability...but it's not the missing son. Is it another son of the father that he didn't know about? Or is it just a rare coincidence of a paternity test without a mother? It is at least a good indication that more than 16 marker systems should be examined when only one parent is available.