

False charges can be created by mixture DNA samples

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Natalie Ram et al. wrote an article entitled “Genealogy databases and the future of criminal investigation” (1). If the evidence contains DNA from only one or two people, DNA profiles are extremely reliable (2). However, if the evidence contains mixture DNA from three or more than three people, the DNA criminal investigation is not accurate at all (2). The DNA criminal investigators must inform us whether sampled DNA is mixture DNA or not. Otherwise, false charges can be created by the scientific DNA criminal investigation. In order to avoid biases of forensic experts, several DNA tests are needed to justify/remove the biases (3).

References:

1. Natalie Ram et al. , “Genealogy databases and the future of criminal investigation,” Science 08 Jun 2018: Vol. 360, Issue 6393, pp. 1078-1079
2. <https://www.nist.gov/news-events/news/2017/10/nist-assess-reliability-forensic-methods-analyzing-dna-mixtures>
3. <http://science.sciencemag.org/content/360/6386/243>