Forensic genetics flaws spell trouble in courtroom

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

Recently, the Texas Forensic Science Commission raised concerns about the accuracy of the statistical interpretation of DNA evidence, and it is now checking whether convictions going back more than a decade are safe.

Despite how it is often portrayed, in the media and in courts, the forensic science of DNA is far from infallible. Particularly concerning is that police and prosecutors now frequently talk of ‘touch DNA’ — genetic profiles of suspects and offenders that have been generated in a laboratory from just a handful of skin cells left behind in a fingerprint.

Research done by me and others at the University of Indianapolis in Indiana has highlighted how unreliable this kind of evidence can be. We have found that it is relatively straightforward for an innocent person’s DNA to be inadvertently transferred to surfaces that he or she has never come into contact with. This could place people at crime scenes that they had never visited or link them to weapons they had never handled.

Such transfer could also dilute the statistics generated from DNA evidence, and thereby render strong genetic evidence almost insignificant. (This issue is the focus of the Texas investigation.)

We urgently need to review how DNA evidence is assessed, viewed and described. Everyone in the medico-legal community — forensic scientists and technicians, DNA analysts, potential jurors, judges and lawyers for both the prosecution and defence— must know and understand the potential for mistakes.

Read full, original post: Forensic DNA evidence is not infallible