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When good DNA goes bad

Forensic identification is an information science that serves society, helping to protect the public from crime. DNA is the forensic gold standard, providing match statistics that quantify identification information. Preserving information is especially important with DNA mixtures, a common type of biological evidence that contains more than one person.

Computer mixture interpretation is effective in preserving DNA evidence information, as confirmed by scientific validation studies that have measured its sensitivity, specificity and reproducibility. But current human review of the same mixtures is far less effective – half the time lab personnel produce no conclusive statistic, and, when they do, most of the information is lost. Indeed, vital government DNA databases for solving cold cases use only a tenth of collected mixture evidence.

More effective public policy is needed to help bridge the DNA information gap. Criminals should be identified, and innocents cleared, using the best available DNA technology. This talk introduces the scientific and legal issues, and proposes solutions that could help taxpayers obtain far greater DNA protection for their forensic dollar.

Biography

Mark Perlin is Chief Scientific and Executive Officer at Cybergenetics. He has twenty years experience developing computer methods for information-rich interpretation of DNA evidence, and providing TrueAllele® products and services to the criminal justice community.

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