

DNA WEIGHT AND THE LEGAL RULES OF RELEVANCE

Ted Robert Hunt, Jackson County, Missouri (Kansas City) Prosecutor's Office

DNA analysts have become generally familiar with legal concepts of admissibility that govern the application of the *Frye* and *Daubert* tests to questioned forensic technologies. Less familiar, however, are the trial-level rules of relevance that control the piecemeal admission of DNA testimony **after** it has been admitted as generally accepted or reliable. The judicial interpretations of these rules, which vary by jurisdiction, are embodied within the written legal decisions of state and federal courts across the nation. The application of these rules can have a dramatic impact on whether and how testimonial conclusions by DNA analysts may be presented to the finder of fact.

One area of significant legal variability concerns the manner in which the weight of a DNA inclusion may be permissibly characterized in court. At the same time, however, various authorities within the forensic DNA community provide labs and analysts with their own set of directions on whether, and to what extent, statistical calculations for questioned DNA inclusions should be prepared and disseminated. What does the law have to say about this? Are these directives potentially in conflict with legal precedent? If so, in what way?

Which terms that seek to describe an analyst's conclusion are sufficiently probative to warrant their admission? Must an inclusion be accompanied by a statistic, or is a qualitative statement legally adequate? Which statistical approaches are judicially endorsed? How rare must an inclusionary statistic be to qualify as both logically and legally relevant, thus leading to its admission as evidence? Are statements of source attribution admissible? Is a contextually relevant DNA inclusion accompanied by a rare statistic – standing alone – sufficient to support a conviction? On the other hand, at what point does a singular probative inclusion become too statistically common to support a criminal verdict?

The answers to these questions are infrequently discussed, but are critically important to DNA laboratories and analysts who must comply with weight-of-evidence legal requirements for the jurisdictions in which they work and testify. These requirements may directly impact existing laboratory SOPs, which describe the method and manner in which an inclusionary result is to be reported in a given jurisdiction. They may also impact the way in which an analyst must characterize an inclusionary result in a given case and courtroom.

This presentation will provide a jurisdictional review of judicial opinions that directly speak to these important legal and scientific questions. Legal rules of relevance will be discussed and their interaction with statistical issues surrounding the courtroom presentation of forensic DNA typing will be described. It is hoped that as a result of this presentation, analysts will become more familiar with how the legal rules of relevance affect the admission of weight-related testimony for admitted DNA technologies.