



Online DNA Training Targets Lawyers, Judges

by Glenn R. Schmitt

About the Author

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In today's criminal justice system, one of the most powerful tools in the search for the truth is DNA evidence. But the complexity of forensic DNA technologies, techniques, and analysis presents new challenges to prosecutors, defense lawyers, and judges.

As new and more complex types of forensic techniques are developed, and as the public becomes aware of them, judges and lawyers are frequently faced with the so-called "CSI Effect"—inflated expectations by jurors of how forensic analysis can be used in criminal investigations. This problem is probably nowhere more pronounced than in the area of forensic DNA analysis. Continuing advances in this field increase jurors'

expectations that science can solve most crimes. The use of forensic DNA analysis is increasing as States continue to pass laws that expand their DNA databases to require all felons and, in some States, even persons arrested for crimes, to provide a DNA sample. The Nation's courts are being called upon to adjudicate an even greater number of cases that involve forensic DNA evidence, and the officers of those courts are being asked to use this type of evidence far more often.

To assist lawyers and judges in the use of DNA analysis in the courtroom, the National Institute of Justice—the research, development and evaluation arm of the U.S. Department of Justice—created an online training program, *Principles of Forensic DNA for Officers of the Court*. NIJ's interactive, computer-based training program discusses DNA evidence from the crime scene to the laboratory, from the courtroom to post-conviction testing, and was funded as part of the President's DNA Initiative, *Advancing*

Justice Through DNA Technology. The DNA Initiative provides operational funding, laboratory capacity-building, training, research and development, and technical assistance to help ensure that forensic DNA technology reaches its full potential to solve crime, protect the innocent, and identify missing persons.

The 15-module *Officers of the Court* program covers a wide-range of topics dealing with forensic DNA analysis, including:

- The biology of DNA and key issues of how DNA is used to solve crime.
- The workings of a forensic laboratory and how to understand a DNA laboratory report.
- Statistics and population genetics.
- DNA analysis, including mitochondrial and short tandem repeat (STR) analysis.
- The collection of DNA from evidence and suspects.
- Victim issues, such as privacy considerations and testing procedures.
- Pretrial evidentiary issues.
- Trial presentation.
- The use of DNA in post-conviction cases.
- Emerging trends in DNA analysis.

Module 13, for example, discusses ways to make DNA evidence more comprehensible to jurors. It offers a video that shows an expert witness presenting her background and qualifications to a jury. There is guidance for formulating questions to a forensic DNA expert, including sample opening questions. There is also a discussion on the use of analogies to help jurors intelligently and fairly evaluate DNA evidence. And the module addresses pretrial preparation between attorney and expert to ensure that jurors receive the appropriate level of technical detail, including testimony on issues such as the significance of testing results and areas of potential cross-examination.

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Another module in the training program discusses the framework within which states can conduct post-conviction DNA testing. For example, hair found at a crime scene that previously might have been identified only by microscopic analysis can now be tested using mitochondrial DNA analysis. In addition, recent technological advances now allow testing of smaller, limited, degraded, or mixed biological samples. This module also provides information on the existence, location, and condition of biologic evidence, and offers guidance on some of the legal and procedural issues involved in post-conviction DNA testing.

Looking to the future, module 15 examines emerging trends in DNA analysis and how these may affect the use of biologic evidence in the courtroom. For example, an increasing number of laboratories are automating DNA testing procedures to reduce cost, increase efficiency, and decrease the likelihood of human error.

Why Online Training?

Online tutorials—sometimes called “e-learning”—can decrease training costs for judges and public- and private-sector criminal lawyers. And, as legal professionals gain a greater understanding of DNA analysis—the most rapidly evolving scientific method of identification—plea bargains may

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increase, leading to administrative cost savings. In fact, efficiencies may be realized beyond the courts, as more coordination occurs among requests for DNA testing, pretrial preparation, and expert testimony requirements.

This training program uses a multimedia approach: text, images, animations, audio, and video. Some of the Nation's top criminal

law, forensic science, and e-learning experts helped develop this training. Although it is designed primarily for prosecutors, defense lawyers, and judges, it is also an outstanding resource for victim advocates, investigators, law students, and other criminal justice professionals interested in this area.

Because the forensic sciences are ever evolving—and particularly because the general public often misunderstands the application and utility of DNA evidence—judges and lawyers must increase their understanding of DNA technology and how it is used to prove guilt or innocence. NIJ is committed to developing tools to help them meet that responsibility.

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For More Information

- *Principles of Forensic DNA for Officers of the Court*, NCJ 212399, is available online at www.dna.gov/training/otc. A CD-ROM version can be ordered through the National Criminal Justice Reference Service (NCJRS) at www.ncjrs.gov.