

Training and Quality Assurance in STR Technology

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The rapid advances in forensic DNA technology have required the forensic community to ensure that their scientists are adequately trained and that their work product is of the highest quality. The Illinois State Police have instituted a program where 51 current Forensic Biologists/DNA Analysts will be trained with STR technology by capillary electrophoresis over a three year period. The training programs have been specifically designed to build on the scientist's previous DNA experience. A program for analysts currently reporting DNA is six months in length, self directed, and covers instrument and multiplex validations, including matrix, reproducibility, sensitivity, mixtures, and precision. In addition, emphasis is placed on establishing interpretation guidelines, report writing, non-probative casework and supervised casework. The training program for scientists with no DNA experience is nine months in length and includes additional training on DNA extraction, quantification and court testimony.

Quality assurance has always been a high priority for the Illinois State Police. A review of the numerous programs which have been implemented to ensure the quality and uniformity of testing, random case file reviews, random case reanalysis, and specific procedures for the quality control of reagents and instruments used in STR analysis.

This poster will provide information on the goals and objectives of an STR training program, as well as the training schedules and the various documents created to assist in educating the analysts. Information on quality assurance programs as well as quality assurance procedures for STR analysis will also be presented.